

NASA Assistance to the Physically Challenged

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MSFC has a long history of helping physically challenged individuals overcoming limitations imposed by their handicaps and enjoying an enhanced quality of life.

One such success story began with the Technology Transfer Office's participation in an exhibit sponsored by the Alabama Department of Education's Division of Rehabilitative Services. Subsequently, a request for assistance was referred to MSFC's Technology Applications Board for the design of a specially designed water ski for use by wheelchair-confined persons. Specifications dictated a seat

that would provide a softer ride and that would not sway to the side.

Engineer Bruce Weddendorf of the Structures and Dynamics Laboratory's Special Projects Design Branch led the design effort, which culminated in a modified framework for a seat with a special shock absorber to eliminate side sway. The seat mounts to a water ski on four tracks, along which the seat can be moved to suit the preferences of the skier.

Steven Hamilton recently used the preliminary seat design to win the U.S. national competition in his division (fig. 119). He then took an upgraded water-ski seat to Australia, where he won the world water-skiing championship in his class.

Sponsor: Office of Commercial Development and Technology Transfer



FIGURE 119.—MSFC-designed water ski for the physically challenged.